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FILE COVERS 1907 - 10 Dec 2003 VOL 139 ISS 24  
FILE LAST UPDATED: 9 Dec 2003 (20031209/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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=> d stat que
L1      4 SEA FILE=REGISTRY ABB=ON    PLU=ON   SBHWSB2/BI
L2     104 SEA FILE=REGISTRY ABB=ON    PLU=ON   SOCS/BI
L3      44 SEA FILE=REGISTRY ABB=ON    PLU=ON   WD40/BI
L4      25 SEA FILE=REGISTRY ABB=ON    PLU=ON   BIOLOGICAL/BI
L5     261 SEA FILE=REGISTRY ABB=ON    PLU=ON   ANTIGENIC/BI
L6    144 SEA FILE=REGISTRY ABB=ON    PLU=ON   IMMUNOGENIC/BI
L12     1 SEA FILE=HCAPLUS ABB=ON    PLU=ON   L1
L13     71 SEA FILE=HCAPLUS ABB=ON   PLU=ON   L2
L14     34 SEA FILE=HCAPLUS ABB=ON   PLU=ON   L3
L15   4596 SEA FILE=HCAPLUS ABB=ON   PLU=ON   L4
L16     96 SEA FILE=HCAPLUS ABB=ON   PLU=ON   L5
L17     83 SEA FILE=HCAPLUS ABB=ON   PLU=ON   L6
L18   4868 SEA FILE=HCAPLUS ABB=ON   PLU=ON   L12 OR L13 OR L14 OR L15 OR
          L16 OR L17
L23     33 SEA FILE=HCAPLUS ABB=ON   PLU=ON   L18 AND L***
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L23 ANSWER 1 OF 33	HCAPLUS	COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER:	2003:509353 HCAPLUS	
DOCUMENT NUMBER:	139:112512	
TITLE:	Characterization of a bovine gene encoding an ankyrin repeat and <b>SOCS</b> box protein (ASB15)	
AUTHOR(S):	McDaneld, T. G.; Moody, D. E.	
CORPORATE SOURCE:	Department of Animal Science, Purdue University, West Lafayette, IN, 47907-2054, USA	
SOURCE:	Animal Genetics (2003), 34(3), 235-236	
	CODEN: ANGEE3; ISSN: 0268-9146	
PUBLISHER:	Blackwell Publishing Ltd.	
DOCUMENT TYPE:	Journal	
LANGUAGE:	English	
AB	Ankyrin repeat and suppressor of cytokine signaling ( <b>SOCS</b> ) box protein (ASB) 15 belongs to a family of genes characterized by the presence of both an ankyrin repeat and <b>SOCS</b> box motif. Bovine ASB15 was characterized by determining the complete coding sequence, describing conserved sequence motifs, and defining its genomic organization and chromosome location. Chromosome localization was determined using bovine	

IT radiation hybrid and somatic cell mapping panels.  
**481587-38-6**  
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)  
 (amino acid sequence; characterization of a bovine gene encoding an ankyrin repeat and **SOCS** box protein (ASB15))  
 IT **481583-97-5**  
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)  
 (amino acid sequence; characterization of bovine gene encoding ankyrin repeat and **SOCS** box protein (ASB15))  
 IT **460620-75-1**  
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)  
 (nucleotide sequence; characterization of a bovine gene encoding an ankyrin repeat and **SOCS** box protein (ASB15))  
 IT **457530-02-8 457530-03-9 457530-04-0**  
**457530-05-1 457530-06-2 457530-07-3**  
**457530-08-4 457530-09-5 457530-10-8**  
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)  
 (nucleotide sequence; characterization of bovine gene encoding ankyrin repeat and **SOCS** box protein (ASB15))  
 REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 2 OF 33 HCPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 2003:301101 HCPLUS  
 DOCUMENT NUMBER: 138:333436  
 TITLE: Screening for effector molecules capable of interacting with **SOCS** protein and their therapeutic and diagnostic uses  
 INVENTOR(S): Hilton, Douglas James; Nicola, Nicos A.; Alexander, Warren Scott; Starr, Robyn; Nicholson, Sandra Elaine; Willson, Tracy; Viney, Elizabeth; Rakar, Steven; Krebs, Danielle; Baca, Manuel; Uren, Rachel  
 PATENT ASSIGNEE(S): The Walter and Eliza Hall Institute of Medical Research, Australia  
 SOURCE: PCT Int. Appl., 79 pp.  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
<u>WO 2003031468</u>	A1	20030417	WO 2002-AU1353	20021004
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: US 2001-327381P P 20011005

AB The present invention relates generally to mols. which are capable of interacting with members of the family of suppressors of cytokine signaling (**SOCS**) proteins, in particular **SOCS-6** and

**SOCS-7.** **SOCS-6** is a member of the suppressor of cytokine signaling (**SOCS**) family of proteins (**SOCS-1** to **SOCS-7** and CIS) which each contain a central SH2 domain and a carboxyl-terminal **SOCS** box. The function of **SOCS-6** are examined using both biochem. and genetic approaches. **SOCS-6** and **SOCS-7** are expressed ubiquitously in murine tissues. By investigating the binding specificity of the **SOCS-6** and **SOCS-7** SH2 domains, it is found that they preferentially bound to phosphopeptides containing a valine in the phosphotyrosine (pY) +1 position and a hydrophobic residue in the pY +2 and pY +3 positions; thus phosphopeptide libraries are designed and synthesized accordingly for drug screening. In addition, these SH2 domains interacted with a protein complex consisting of insulin receptor substrate 4 (IRS-4), IRS-2, and the p85 regulatory subunit of phosphatidylinositol 3-kinase. Also disclosed are **SOCS-6** knockout model for studying the physiol. role of **SOCS-6**. The target mols. for the screening range from intracellular proteinaceous targets for which the **SOCS** is a ligand to chems. including proteinaceous entities identified inter alia by screening of natural products, chemical libraries and/or through rational drug design. The identification of intracellular targets of a **SOCS** protein and/or the identification of other interactors of the **SOCS** mol. permits the development of a range of therapeutic and diagnostic applications. The present invention particularly relates to **SOCS-6** and its involvement in various physiol. processes such as those mediated by growth factor or hormone signaling.

IT      **512862-00-9 512862-01-0**  
 RL: ARU (Analytical role, unclassified); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)  
 (amino acid sequence; screening for effector mols. capable of interacting with **SOCS** protein and their therapeutic and diagnostic uses)

IT      **512862-02-1 512862-03-2**  
 RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (nucleotide sequence; screening for effector mols. capable of interacting with **SOCS** protein and their therapeutic and diagnostic uses)

REFERENCE COUNT:      11      THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 3 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER:      2003:124961 HCAPLUS

DOCUMENT NUMBER:      139:66565

TITLE:      The ankyrin repeat containing **SOCS** box protein 5: a novel protein associated with arteriogenesis

AUTHOR(S):      Boengler, Kerstin; Pipp, Frederic; Fernandez, Borja; Richter, Alexandra; Schaper, Wolfgang; Deindl, Elisabeth

CORPORATE-SOURCE:      Dept. of Experimental Cardiology, Max-Planck-Institute for Physiological and Clinical Research, Bad Nauheim, D-61231, Germany

SOURCE:      Biochemical and Biophysical Research Communications (2003), 302(1), 17-22

PUBLISHER:      Elsevier Science

DOCUMENT TYPE:      Journal

LANGUAGE:      English

AB      Arteriogenesis, the growth of pre-existing collateral arteries, can be induced in rabbit by occlusion of the femoral artery. In order to identify and characterize genes differentially expressed during the early phase of arteriogenesis, cDNA of collateral arteries 24 h after femoral

ligation or sham operation was subjected to suppression subtractive hybridization. We identified the ankyrin repeat containing **SOCS** box protein 5 (asb5) and cloned the rabbit full-length cDNA. Asb5 was demonstrated to be a single-copy gene. We localized the asb5 protein in vivo in endothelial and smooth muscle cells of collateral arteries as well as in satellite cells. Asb5 was significantly upregulated in growing collateral arteries on mRNA and protein level. The infusion of doxorubicin in rabbit led to a significant decrease of the asb5 mRNA. In summary, our data show that asb5 is a novel protein implicated in the initiation of arteriogenesis.

IT 552270-57-2

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)  
(amino acid sequence; cDNA and protein sequences of rabbit ankyrin repeat containing **SOCS** box protein 5 (Asb5) associated with arteriogenesis)

IT 497658-01-2

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)  
(nucleotide sequence; cDNA and protein sequences of rabbit ankyrin repeat containing **SOCS** box protein 5 (Asb5) associated with arteriogenesis)

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 4 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2003:83839 HCAPLUS

DOCUMENT NUMBER: 138:363484

TITLE: Cloning and characterization of a functional promoter of the human **SOCS**-3 gene

AUTHOR(S): He, Biao; You, Liang; Uematsu, Kazutsugu; Matsangou, Maria; Xu, Zhidong; He, Miao; McCormick, Frank; Jablons, David M.

CORPORATE SOURCE: Comprehensive Cancer Center, Thoracic Oncology Laboratory, Department of Surgery, University of California, San Francisco, CA, 94115, USA

SOURCE: Biochemical and Biophysical Research Communications (2003), 301(2), 386-391  
CODEN: BBRCA9; ISSN: 0006-291X

PUBLISHER: Elsevier Science

DOCUMENT TYPE: Journal

LANGUAGE: English

AB **SOCS**-3 is a member of a newly discovered protein family that inhibits LIF-activated Janus kinase (JAK)-signal transducers and activators of transcription (STAT) signaling in a neg. auto-regulatory manner. In this study, we have cloned and characterized the promoter region of the human **SOCS**-3 gene. This region is .apprx.1.1 kbp in length and consists of two putative STAT-binding elements, a G-rich element, and a putative TATA box. These elements are highly conserved in both murine and rat **SOCS**-3 promoters. Functional anal. of this region shows that the whole fragment (.apprx.1.1 kbp) has high basal promoter activity and is responsive to growth factors. We also found that the wild type **SOCS**-3 promoter construct has significantly greater activity in non-small-cell lung cancer cell lines than in normal cells in accordance with STAT3 disregulation in these cells. Cloning of the human **SOCS**-3 promoter should help uncover mechanisms of regulation of the JAK-STAT pathway in human cancer.

IT 521099-67-2

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)  
(nucleotide sequence; characterization of functional promoter of human **SOCS**-3 gene)

REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 5 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 2003:64454 HCAPLUS  
 DOCUMENT NUMBER: 138:298665  
 TITLE: Molecular cloning and characterization of the human ASB-8 gene encoding a novel member of ankyrin repeat and **SOCS** box containing protein family  
 AUTHOR(S): Liu, Yongzhong; Li, Jinjun; Zhang, Fengrui; Qin, Wenxin; Yao, Genfu; He, Xianghuo; Xue, Peng; Ge, Chao; Wan, Dafang; Gu, Jianren  
 CORPORATE SOURCE: Shanghai Cancer Institute, State Key Laboratory of Oncogenes and Related Genes, Shanghai, 200032, Peop. Rep. China  
 SOURCE: Biochemical and Biophysical Research Communications (2003), 300(4), 972-979  
 CODEN: BBRCA9; ISSN: 0006-291X  
 PUBLISHER: Elsevier Science  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB We have cloned a new member of human ankyrin repeat and **SOCS** box containing protein family (ASB), designed as hASB-8, from a human placental cDNA library and further extended by 5' and 3'-RACE. The full-length cDNA was 2545 bp in length, with a predicted open reading frame encoding a protein of 288 amino acids, which was 96% identical to mouse ASB-8 protein. Computer anal. revealed that the deduced amino acid sequence of the human ASB-8 contained four Ankyrin repeats and one **SOCS** box. The gene had four exons separated by three introns and was mapped to human chromosome 12q13. Human ASB-8 mRNA was expressed at the highest level of expression in skeletal muscle and at a varied level of expression in heart, brain, placenta, liver, kidney, and pancreas. The transcript of hASB-8 was not detected in adult normal lung tissue, but found in lung carcinoma cell lines SPC-A1, A549, and NCI-H446. Subcellular localization anal. showed that the EGFP-tagged hASB-8 protein was localized at cytoplasm in human hepatocellular carcinoma cell line BEL-7402. We also provided evidence that hASB-8 could interact with Elongin B-C complex in vitro. Furthermore, transfection with the truncated mutant of hASB-8 cDNA lacking **SOCS** box could suppress cell growth of lung adenocarcinoma SPC-A1 cells in vitro, which suggests that this gene might be related to the development of lung cancer.

IT 510720-63-5

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)  
 (nucleotide sequence; sequencing of human ASB-8 gene encoding member of ankyrin repeat and **SOCS** box containing protein family)

REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 6 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 2003:23426 HCAPLUS  
 DOCUMENT NUMBER: 138:84438  
 TITLE: Microarrays and methods for evaluating activity of compounds having estrogen-like activity  
 INVENTOR(S): Kiyama, Ryoiti; Oguchi, Shinobu  
 PATENT ASSIGNEE(S): National Institute of Advanced Industrial Science and Technology, Japan  
 SOURCE: U.S. Pat. Appl. Publ., 44 pp., Cont.-in-part of U.S. Pat. Appl. 2002 102,589.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003008309	A1	20030109	US 2002-120780	20020412
US 2002102589	A1	20020801	US 2001-975316	20011012
JP 2002360249	A2	20021217	JP 2001-317152	20011015
PRIORITY APPLN. INFO.:				
			JP 2000-313403	A 20001013
			US 2001-300835P	P 20010627
			US 2001-975316	A2 20011012
			JP 2001-317152	A 20011015

AB In order to detect the effects of environmental hormones, the effect of chemical substances having estrogen-like activity are detected and evaluated. This invention is characterized in that DNA fragments containing portions or wholes of genes and/or ESTs (expressed sequence tags) whose expression is affected by chemical substances having estrogen-like activity are immobilized on the basal plate of the microarray.

IT 210181-91-2

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)  
(nucleotide sequence; microarrays and methods for evaluating activity of compds. having estrogen-like activity)

L23 ANSWER 7 OF 33 HCPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2002:890712 HCPLUS

DOCUMENT NUMBER: 138:216141

TITLE: Structural characterization of the mouse high growth deletion and discovery of a novel fusion transcript between suppressor of cytokine signaling-2 (**Socs-2**) and viral encoded semaphorin receptor (Plexin C1)

AUTHOR(S): Wong, Marisa L.; Islas-Trejo, Alma; Medrano, Juan F.

CORPORATE SOURCE: Department of Animal Science, University of California, Davis, CA, 95616-8521, USA

SOURCE: Gene (2002), 299(1-2), 153-163  
CODEN: GENED6; ISSN: 0378-1119

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The high growth (HG) mouse mutation is a 460 Kb deletion of chromosome 10 which causes a 30-50% increase in growth in the homozygous animal. We have shotgun sequenced six bacterial artificial chromosomes which span the length of the deletion to an average depth of 13.2+ to generate a 649,868 bp sequence. Sequence anal. revealed the presence of three genes, suppressor of cytokine signaling-2 (**Socs-2**), caspase and RIP adaptor with death domain (Raidd/Cradd), and viral encoded semaphorin receptor (Plexin C1, viral encoded semaphorin receptor). The two deletion breakpoints lie in within the second introns of both **Socs-2** and Plexin C1, resulting in the formation of a novel expressed fusion transcript between **Socs-2** and Plexin C1 in HG mice. Expression of the fusion transcript, the presence of four splice variants of Raidd/Cradd and the exon structure of **Socs-2** were illustrated using polymerase chain reaction. Genomic-comparisons of the mouse and human sequence were used to verify the sequence assembly.

IT 499968-20-6

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)  
(amino acid sequence; structural characterization of mouse high growth deletion and discovery of novel fusion transcript between suppressor of cytokine signaling-2 (**Socs-2**) and viral encoded semaphorin receptor (Plexin C1))

REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 8 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 2002:814160 HCAPLUS  
 DOCUMENT NUMBER: 137:323728  
 TITLE: Methylation-silenced **SOCS-1, SOCS-2, SOSC-3 and CIS-2** gene expression associated with cancer and their use in diagnosis and treatment  
 INVENTOR(S): Herman, James G.; Yoshikawa, Hirohide; Harris, Curtis C.  
 PATENT ASSIGNEE(S): The Johns Hopkins University School of Medicine, USA;  
 National Cancer Institute  
 SOURCE: PCT Int. Appl., 107 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
<u>WO 2002083705</u>	A1	20021024	WO 2002-US11790	20020415
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: US 2001-283709P P 20010413  
 AB Methods are provided for identifying a cell exhibiting unregulated growth associated with methylation-silenced transcription of a suppressor of cytokine signaling (**SOCS**)/cytokine-inducible SH2 protein (CIS) family member (**SOCS/CIS**) gene such as the **SOCS-1** gene. In addition, methods of treating a cancer patient, wherein cancer cells in the patient exhibit methylation-silenced transcription of **SOCS**/CIS gene such as a **SOCS-1** gene, are provided, as are reagents for practicing such methods.

IT 384770-99-4, GenBank U88326 473751-24-5  
 RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (nucleotide sequence; methylation-silenced **SOCS-1, SOCS-2, SOSC-3 and CIS-2** gene expression associated with cancer and their use in diagnosis and treatment)  
 REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 9 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 2002:760446 HCAPLUS  
 DOCUMENT NUMBER: 137:243102  
 TITLE: Protein and cDNA sequences of a novel human **SOCS-5** (suppressor of cytokine signaling) protein 29 and therapeutic use thereof  
 INVENTOR(S): Mao, Yumin; Xie, Yi  
 PATENT ASSIGNEE(S): Bode Gene Development Co., Ltd., Shanghai, Peop. Rep. China  
 SOURCE: Faming Zhuanli Shengqing Gongkai Shuomingshu, 32 pp.  
 CODEN: CNXXEV  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Chinese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1331096	A	20020116	CN 2000-116831	20000628
WO 2002020585	A1	20020314	WO 2001-CN1059	20010625
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 2002014910	A5	20020322	AU 2002-14910	20010625
PRIORITY APPLN. INFO.:			CN 2000-116831	A 20000628
			WO 2001-CN1059	W 20010625

AB The invention provides protein and cDNA sequences of a novel human protein, designated as "**SOCS-5** (suppressor of cytokine signaling) protein 29", which has similar gene expression pattern with known human **SOCS-5** (suppressor of cytokine signaling) protein. The invention relates to expression of **SOCS-5** (suppressor of cytokine signaling) protein 29 in E.coli BL21(DE3)plySs transfected with plasmid pET-28(+). The invention also relates to preparation of antibody against **SOCS-5** (suppressor of cytokine signaling) protein 29. The invention further relates to the uses of the **SOCS-5** (suppressor of cytokine signaling) protein 29 fragment as probes in diagnosis, and in treatment of **SOCS-5** (suppressor of cytokine signaling) protein 29-related diseases (such as malignant tumors, growth and development disorders, blood disease, immune disorder, HIV infection, or inflammation).

IT **460775-68-2P**

RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (amino acid sequence; protein and cDNA sequences of novel human **SOCS-5** (suppressor of cytokine signaling) protein 29 and therapeutic use thereof)

IT **460775-67-1P 460775-69-3P**

RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (nucleotide sequence; protein and cDNA sequences of novel human **SOCS-5** (suppressor of cytokine signaling) protein 29 and therapeutic use thereof)

L23 ANSWER 10 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2002:539832 HCAPLUS

DOCUMENT NUMBER: 137:104803

TITLE: Cloning, protein-and-cDNA-sequences\_of human  
**SOCS-8** (suppressor of cytokine signaling-8)

INVENTOR(S): Parodi, Luis A.

PATENT ASSIGNEE(S): Pharmacia &amp; Upjohn Company, USA

SOURCE: PCT Int. Appl., 59 pp.

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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 WO 2002055699 A2 20020718 WO 2001-US44697 20011207  
 WO 2002055699 A3 20030403  
 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,  
 CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,  
 GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,  
 LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,  
 PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA,  
 UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,  
 CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,  
 BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  
 EP 1341913 A2 20030910 EP 2001-989134 20011207  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR  
 PRIORITY APPLN. INFO.: US 2000-255776P P 20001214  
 WO 2001-US44697 W 20011207

AB The invention relates to protein and cDNA sequences of human protein **SOCS-8** (suppressor of cytokine signaling-8). The invention also relates to vector and host cells for recombinant production of said **SOCS-8**. The invention also related to methods of identifying agents that modulate the propensity of the said **SOCS-8**. The invention also relates to polyclonal antibody and monoclonal antibody and their uses in immunoassay for detecting the said **SOCS-8**.

IT 442992-45-2P

RL: ANT (Analyte); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); ANST (Analytical study); BIOL (Biological study); PREP (Preparation)  
 (amino acid sequence; cloning, protein and cDNA sequences of human **SOCS-8** (suppressor of cytokine signaling-8))

IT 442992-44-1

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)  
 (nucleotide sequence; cloning, protein and cDNA sequences of human **SOCS-8** (suppressor of cytokine signaling-8))

L23 ANSWER 11 OF 33 HCPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2002:521969 HCPLUS  
 DOCUMENT NUMBER: 137:90000  
 TITLE: Protein-protein interactions in adipocyte cells and method for selecting modulators of these interactions  
 INVENTOR(S): Legrain, Pierre; Marullo, Stefano; Jockers, Ralf  
 PATENT ASSIGNEE(S): Hybrigenics, Fr.; Centre National De La Recherche Scientifique  
 SOURCE: PCT Int. Appl., 125 pp.  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002053726	A2	20020711	WO 2001-EP15423	20011228
WO 2002053726	A3	20030313		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,				

BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  
 US 2003040089 A1 20030227 US 2002-38010 20020102

PRIORITY APPLN. INFO.: US 2001-259377P P 20010102

AB The present invention relates to protein-protein interactions of adipocyte. More specifically, the present invention relates to complexes of polypeptides, or polynucleotides encoding the polypeptides, fragments of the polypeptides, antibodies to the complexes. Selected Interacting Domains (SID) which are identified due to the protein-protein interactions, methods for screening drugs for agents which modulate the interaction of proteins, and pharmaceutical compns. that are capable of modulating the protein-protein interactions are further disclosed.

IT 442599-08-8

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)  
 (nucleotide sequence; protein-protein interactions in adipocyte cells and method for selecting modulators of these interactions)

L23 ANSWER 12 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2002:293356 HCAPLUS

DOCUMENT NUMBER: 136:319386

TITLE: Modulating cytokine or hormone signalling in an animal comprising up-regulating the expression of SOCS sequence in the animal

INVENTOR(S): Nash, Andrew; MacCarone, Pino; Egan, Paul; Wicks, Ian

PATENT ASSIGNEE(S): Amrad Operations Pty Ltd., Australia

SOURCE: PCT Int. Appl., 52 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002030184	A1	20020418	WO 2001-AU1272	20011009
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2001093519	A5	20020422	AU 2001-93519	20011009
EP 1330156	A1	20030730	EP 2001-973853	20011009
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
PRIORITY APPLN. INFO.:			AU 2000-647	A 20001009
			AU 2000-1942	A 20001207
			WO 2001-AU1272	W 20011009

OTHER SOURCE(S): MARPAT 136:319386

AB The present invention relates generally to a method for the treatment and/or prophylaxis of conditions arising from or otherwise associated with aberrations in hormone signaling. More particularly, the present invention contemplates a method for the treatment and/or prophylaxis of conditions, the amelioration of symptoms of which, are facilitated by an over-expression of a gene encoding a suppressor of cytokine signaling mol. The present invention further contemplates agents useful for the prophylaxis and/or treatment of such conditions in mammals including humans. SOCS-1 was shown to have a regulatory role in the development of arthritis in the mouse model.

IT 412104-43-9P 412104-45-1P 412104-48-4P

**412104-49-5P**

RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);  
 PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use);  
 BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (amino acid sequence; modulating cytokine or hormone signalling in  
 animal comprising up-regulating expression of **SOCS** sequence  
 in animal)

IT **412104-42-8P 412104-44-0P 412104-46-2P****412104-47-3P**

RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);  
 PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use);  
 BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (nucleotide sequence; modulating cytokine or hormone signalling in  
 animal comprising up-regulating expression of **SOCS** sequence  
 in animal)

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 13 OF 33 HCPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2001:781180 HCPLUS.

DOCUMENT NUMBER: 135:343314

TITLE: Roles of Jak/Stat family members in tolerance induction

INVENTOR(S): Hancock, Wayne William; Ozkaynak, Engin

PATENT ASSIGNEE(S): Millennium Pharmaceuticals, Inc., USA

SOURCE: PCT Int. Appl., 218 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001079555	A2	20011025	WO 2001-US12131	20010413
WO 2001079555	A3	20030227		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6534277	B1	20030318	US 2001-972800	20011005

PRIORITY APPLN. INFO.: US 2000-549654 A 20000414

AB The present invention relates to methods and compns. for reducing immune rejection, for example, transplant- or autoimmune disorder-related immune rejection. The present invention also relates to methods and compns. for monitoring transplant acceptance and for monitoring an autoimmune disorder in a subject mammal. The present invention still further relates to methods for identifying compds. that can reduce immune rejection. The present invention is based, in part, on the discovery, demonstrated herein, that immune rejection can be monitored by determining the amount of particular members of the Jak/Stat signal transduction pathway present within an affected tissue (i.e., a transplant cell, tissue, organ, or organ system, or a cell, tissue, organ, or organ system i.e., or is suspected of, being affected by an autoimmune disorder). The present invention is further based, in part, on the discovery, demonstrated herein, that immune rejection can be reduced and tolerance can be induced by modulating the amount of these particular members of the Jak/Stat signal transduction pathway present, expressed or active within an affected

tissue. In particular, the results presented herein demonstrate that immune rejection can be monitored by determining the amount of Stat1 mRNA or protein, Stat2 mRNA or protein, Stat3 mRNA or protein, Stat4 mRNA or protein, Stat6 mRNA or protein, SOCS1 mRNA or protein, or SOCS3 mRNA or protein present, e.g., present in an affected tissue.

- IT 193981-56-5 199489-38-8, Protein (human gene CIS3 reduced)  
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)  
 (amino acid sequence; roles of Jak/Stat family members in tolerance induction)
- IT 225598-70-9, DNA (human gene SOCS1 plus flanks)  
 227075-61-8  
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)  
 (nucleotide sequence; roles of Jak/Stat family members in tolerance induction)

- L23 ANSWER 14 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 2001:688626 HCAPLUS  
 DOCUMENT NUMBER: 136:18436  
 TITLE: ATRA-regulated Asb-2 gene induced in differentiation of HL-60 leukemia cells  
 AUTHOR(S): Kohroki, J.; Fujita, S.; Itoh, N.; Yamada, Y.; Imai, H.; Yumoto, N.; Nakanishi, T.; Tanaka, K.  
 CORPORATE SOURCE: Graduate School of Pharmaceutical Science, Osaka University, Suita, Osaka, 565-0871, Japan  
 SOURCE: FEBS Letters (2001), 505(2), 223-228  
 CODEN: FEBLAL; ISSN: 0014-5793  
 PUBLISHER: Elsevier Science B.V.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Suppressors of cytokine signaling (**SOCS**) proteins possess common structures, a **SOCS** box at the C-terminus and a SH2 domain at their center. These suppressors are inducible in response to cytokines and act as neg. regulators of cytokine signaling. The ASB proteins also contain the **SOCS** box and the ankyrin repeat sequence at the N-terminus, but do not have the SH2 domain. Although **SOCS** genes are directly induced by several cytokines, no Asb gene inducers have been identified. In this study, we screened the specific genes expressed in the course of differentiation of HL-60 cells, and demonstrated that ASB-2, one of the ASB proteins, was rapidly induced by all-trans retinoic acid (ATRA). Typical retinoid receptors (RARs) or retinoid X receptors (RXRs) binding element (RARE/RXRE) were presented in the promoter of the Asb-2 gene. We showed that RAR $\alpha$ , one of the RARs, binds to the RARE/RXRE in the Asb-2 promoter. In addition, we demonstrated by luciferase reporter assay that this element was a functional RARE/RXRE. These findings indicate that ASB-2 is directly induced by ATRA and may act as a significant regulator, underlying such physiol. processes as cell differentiation.

- IT 377132-60-0  
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)  
 (amino acid sequence; retinoate-regulated Asb-2 gene induced in differentiation of HL-60 leukemia cells)
- IT 355802-55-0, GenBank AB056723  
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)  
 (nucleotide sequence; retinoate-regulated Asb-2 gene induced in differentiation of HL-60 leukemia cells)
- REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 15 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 2001:380314 HCAPLUS  
 DOCUMENT NUMBER: 135:803  
 TITLE: An animal model for studying hormone signalling and method of modulating the signalling  
 INVENTOR(S): Alexander, Warren Scott; Metcalf, Donald; Greenhalgh, Christopher John  
 PATENT ASSIGNEE(S): The Walter and Eliza Hall Institute of Medical Research, Australia  
 SOURCE: PCT Int. Appl., 71 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
<u>WO 2001035732</u>	A1	20010525	WO 2000-AU1398	20001116
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1242111	A1	20020925	EP 2000-975670	20001116
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
PRIORITY APPLN. INFO.:			AU 1999-4082	A 19991116
			AU 2000-7812	A 20000529
			WO 2000-AU1398	W 20001116

OTHER SOURCE(S): MARPAT 135:803

AB The present invention relates generally to a method for the treatment and/or prophylaxis of conditions arising from or otherwise associated with aberrations in hormone signalling. The present invention further provides an animal model useful for screening for agents capable of agonizing or antagonizing hormone signalling. More particularly, the present invention contemplates a method for the treatment and/or prophylaxis of conditions arising from or otherwise associated with aberrations in growth hormone signalling. The present invention further comprises a genetically modified animal. More particularly, the animals are genetically modified such that they have altered growth hormone signalling. The genetically modified animals of the present invention range from laboratory animals useful inter alia for animal models for studying hormone regulation and for the development of therapeutic protocols predicated, in part, on modulating hormone signalling to livestock animals. The latter may be manipulated for improved food production

IT 193981-57-6  
 RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); OCCU (Occurrence)  
 (amino acid sequence; animal model for studying hormone signalling and method of modulating the signalling)

IT 194676-72-7  
 RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); OCCU (Occurrence)  
 (nucleotide sequence; animal model for studying hormone signalling and method of modulating the signalling)

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 16 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 2001:300838 HCAPLUS  
 DOCUMENT NUMBER: 134:321611  
 TITLE: Protein and cDNA sequences of human EPO primary response gene 1 (EPRG1) and its diagnostic and therapeutic uses  
 INVENTOR(S): Dillon, Susan B.; Lord, Kenneth A.; King, Andrew G.  
 PATENT ASSIGNEE(S): Smithkline Beecham Corporation, USA  
 SOURCE: PCT Int. Appl., 40 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
<u>WO 2001029178</u>	A2	20010426	WO 2000-US29072	20001019
<u>WO 2001029178</u>	A3	20010913		
W: JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1224220	A2	20020724	EP 2000-975323	20001019
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
JP 2003520577	T2	20030708	JP 2001-532164	20001019
PRIORITY APPLN. INFO.:			US 1999-422153 A	19991021
			WO 2000-US29072 W	20001019

- AB The invention provides protein and cDNA sequences of novel human proteins EPRG1 that are believed to be members of the **SOCS** family. Human protein EPRG1 cDNA shows homol. with human EPO primary response gene 1 sequences. EPRG1 proteins are therefore of interest because genes in this family modulate activation of signal transduction pathways from cell growth and differentiation factors. Also disclosed are methods for utilizing EPRG1 polypeptides and polynucleotides in therapy, and diagnostic assays for such.
- IT **199489-38-8P**, Protein (human gene CIS3 reduced)  
 RL: BOC (Biological occurrence); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)  
 (amino acid sequence; protein and cDNA sequences of human EPO primary response gene 1 (EPRG1) and its diagnostic and therapeutic uses)

L23 ANSWER 17 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 2001:105905 HCAPLUS  
 DOCUMENT NUMBER: 135:163220  
 TITLE: Cloning and characterization of CIS 1b (cytokine inducible SH2-containing protein 1b), an alternative splicing form of CIS 1 gene  
 AUTHOR(S): Jiang, Chunling; Yu, Long; Zhao, Yong; Zhang, Min; Liu, Qin; Mao, Ninghui; Geng, Zhengcheng; Zhao, Shouyuan  
 CORPORATE SOURCE: State Key Laboratory of Genetic Engineering, Institute of Genetics, Fudan University, Shanghai, 200433, Peop. Rep. China  
 SOURCE: DNA Sequence (2000), 11(1-2), 149-154  
 CODEN: DNSEES; ISSN: 1042-5179  
 PUBLISHER: Harwood Academic Publishers  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB JAK-STAT pathway is essential in relaying cytokine signals and plays a vital role in cellular responses such as proliferation, differentiation

and immunity. Some members of a recently found cytokine-inducible SH2 protein (CIS, =**SOCS** or SSI) family have proved to have neg. effects on modulating JAK-STAT signaling pathway. In the present study, a novel human cDNA (CIS1b) which proved to be a variant of CIS1 gene was isolated by screen human placenta λ gt11 cDNA library and 5'-rapid amplification of cDNA ends (RACE). Furthermore, the gene structure of CIS1 was determined by comparing the cDNA sequences of CIS1 and CIS1b to the genomic sequence in human chromosome 3p21.3. The expression patterns of CIS1b as well as CIS1 were analyzed by Northern blot.

IT **320798-52-5**

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)  
(amino acid sequence; cloning and characterization of CIS 1b (cytokine inducible SH2-containing protein 1b), an alternative splicing form of CIS 1 gene)

IT **284456-08-2**, GenBank AF035947

RL: BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); OCCU (Occurrence); PROC (Process)  
(nucleotide sequence; cloning and characterization of CIS 1b (cytokine inducible SH2-containing protein 1b), an alternative splicing form of CIS 1 gene)

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 18 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2001:97065 HCAPLUS

DOCUMENT NUMBER: 134:142768

TITLE: Protein and cDNA sequences for a novel human cytokine inducible SH2-containing protein member **SOCS-4** and its therapeutic use

INVENTOR(S): Yu, Long; Jiang, Chunling; Fu, Qiang; Zhang, Honglai; Zhao, Yong

PATENT ASSIGNEE(S): Fudan Univ., Peop. Rep. China

SOURCE: Faming Zhuanli Shengqing Gongkai Shuomingshu, 16 pp.

CODEN: CNXXEV

DOCUMENT TYPE: Patent

LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1257922	A	20000628	CN 1998-125687	19981221

PRIORITY APPLN. INFO.: CN 1998-125687 19981221

AB The invention provides protein and cDNA sequences for a novel human protein **SOCS-4**, which is a member of cytokine inducible SH2-containing protein family. The invention also relates to constructs and methods to express the cloned gene for the preparation of its protein and antibodies using E.coli cells or eukaryotic cells, and therapeutic uses for related diseases.

IT **320798-52-5P**

RL: BPN (Biosynthetic preparation); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(amino acid sequence; protein and cDNA sequences for a novel human cytokine inducible SH2-containing protein member **SOCS-4** and therapeutic use)

IT **321925-17-1**

RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)  
(nucleotide sequence; protein and cDNA sequences for a novel human cytokine inducible SH2-containing protein member **SOCS-4** and

therapeutic use)  
IT 284456-08-2, Genbank AF035947  
RL: PRP (Properties)  
(nucleotide sequence; protein and cDNA sequences for a novel human cytokine inducible SH2-containing protein member **SOCS-4** and therapeutic use)

L23 ANSWER 19 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2000:881315 HCAPLUS

DOCUMENT NUMBER: 134:55504

TITLE: Suppressor of cytokine signaling **SOCS-3**  
promoter and methods for its use

INVENTOR(S): Auernhammer, Christoph J.; Shlomo, Melmed

PATENT ASSIGNEE(S): Cedars-Sinai Medical Center, USA

SOURCE: PCT Int. Appl., 64 pp.  
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000075326	A1	20001214	WO 2000-US40151	20000606
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6541244	B1	20030401	US 1999-327138	19990607
US 2002166136	A1	20021107	US 2002-124905	20020417
US 2002174448	A1	20021121	US 2002-136224	20020429
US 2003186286	A1	20031002	US 2002-334385	20021231

PRIORITY APPLN. INFO.: US 1999-327138 A 19990607

AB Disclosed is a nucleic acid construct comprising a murine **SOCS-3** promoter sequence having SEQ. ID.NO.:1, or a non-murine homolog thereof, or an operative fragment or derivative. The construct can also contain, operatively linked to the **SOCS-3** promoter, a gene encoding any preselected protein, and optionally contains a reporter gene to facilitate detection and/or selection of successfully transfected cells. Also disclosed are a transgenic vertebrate cell containing the nucleic acid construct and transgenic non-human vertebrates comprising such cells. The nucleic acid construct is useful in methods of treating a growth retardation or growth acceleration disorder in a human subject and in a method of treating an autoimmune disease, immune disease, or inflammatory condition in a human subject. A kit for genetically modifying a vertebrate cell includes a polynucleotide comprising the murine **SOCS-3** promoter sequence is also disclosed.

IT 225438-40-4 313284-36-5 313284-37-6

313284-38-7 313284-39-8 313284-40-1

313284-41-2 313284-42-3 313284-43-4

313284-44-5 313284-45-6 313284-46-7

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(nucleotide sequence; suppressor of cytokine signaling **SOCS-3** promoter for treatment of growth disorder, autoimmune disease, immunol. disease and inflammation)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 20 OF 33 HCPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 2000:853083 HCPLUS  
 DOCUMENT NUMBER: 135:71884  
 TITLE: Cloning and characterization of the genes encoding the ankyrin repeat and **SOCS** box-containing proteins Asb-1, Asb-2, Asb-3 and Asb-4  
 AUTHOR(S): Kile, B. T.; Viney, E. M.; Willson, T. A.; Brodnicki, T. C.; Cancilla, M. R.; Herlihy, A. S.; Croker, B. A.; Baca, M.; Nicola, N. A.; Hilton, D. J.; Alexander, W. S.  
 CORPORATE SOURCE: Walter and Eliza Hall Institute for Medical Research and The Cooperative Research Centre for Cellular Growth Factors, Royal Melbourne Hospital, Melbourne, Victoria, 3050, Australia  
 SOURCE: Gene (2000), 258(1-2), 31-41  
 CODEN: GENED6; ISSN: 0378-1119  
 PUBLISHER: Elsevier Science B.V.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Members of the suppressor of cytokine signalling (**SOCS**) family of proteins have been shown to inhibit cytokine signalling via direct interactions with JAK kinases or activated cytokine receptors. In addition to their novel amino-terminal regions and SH2 domains that mediate these interactions, the **SOCS** proteins also contain carboxy-terminal regions of homol. called the **SOCS** box. The **SOCS** box serves to couple **SOCS** proteins and their binding partners with the elongin B and C complex, possibly targeting them for degradation. Several other families of proteins also contain **SOCS** boxes but differ from the **SOCS** proteins in the type of domain or motif they contain upstream of the **SOCS** box. We report here the cloning, characterization, mapping and expression anal. of four members of the ankyrin repeat and **SOCS** box-containing (Asb) protein family.  
 IT 225904-82-5, GenBank AF155352 225904-83-6, GenBank AF155353 225904-84-7, GenBank AF155354 225904-85-8, GenBank AF155355 227066-91-3, GenBank AF156777 227066-92-4, GenBank AF156778 227066-93-5, GenBank AF156779  
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)  
 (nucleotide sequence; cloning and characterization of the genes encoding the ankyrin repeat and **SOCS** box-containing proteins Asb-1, Asb-2, Asb-3 and Asb-4)  
 REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 21 OF 33 HCPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 2000:783759 HCPLUS  
 DOCUMENT NUMBER: 134:40081  
 TITLE: Suppressor of Cytokine Signaling (**SOCS**)-3 Protein Interacts with the Insulin-like Growth Factor-I Receptor  
 AUTHOR(S): Dey, Bhakta R.; Furlanetto, Richard W.; Nissley, Peter  
 CORPORATE SOURCE: Metabolism Branch, National Cancer Institute, National Institutes of Health, Bethesda, MD, 20892, USA  
 SOURCE: Biochemical and Biophysical Research Communications (2000), 278(1), 38-43  
 CODEN: BBRCA9; ISSN: 0006-291X  
 PUBLISHER: Academic Press  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB **SOCS** proteins are a class of proteins that are neg. regulators of cytokine receptor signaling via the Janus kinase (JAK)/signal

transducer and activator of transcription (STAT) pathway. In a yeast two-hybrid screen of a human fetal brain library, we have previously identified **SOCS-2** as a binding partner of the activated IGF-I receptor (IGFIR). To test whether or not **SOCS-3** also binds to the IGFIR, we cloned human **SOCS-3** by reverse transcription-polymerase chain reaction from human skeletal muscle mRNA. **SOCS-3** mRNA was expressed in many human fetal and adult tissues and in some human cancer cell lines (Hela, A549 pulmonary adenocarcinoma and G361 human melanoma). We found that human **SOCS-3** protein interacts directly with the cytoplasmic domains of the activated IGFIR and the insulin receptor (IR) in the yeast two-hybrid assay. In GST-**SOCS-3** pull-down expts. using IGFIR from mammalian cells and in immunopptn. expts. in which IGFIR and FLAG-**SOCS-3** were transiently expressed in human embryonic kidney 293 cells, we found that **SOCS-3** interacts constitutively with IGFIR in vitro and in intact cells. Unlike **SOCS-2**, hSOCS-3 was phosphorylated on tyrosines in response to IGF-I addition to 293 cells. We conclude that **SOCS-3** binds to the IGFIR and may be a direct substrate for the receptor tyrosine kinase. (c) 2000 Academic Press.

- IT 199489-38-8, Protein (human gene CIS3 reduced)  
 RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)  
 (amino acid sequence; cloning of human suppressor of cytokine signaling (**SOCS**)-3 protein, its tissue expression and interaction with insulin-like growth factor-I receptor and the insulin receptor)
- IT 227075-61-8, GenBank AF159854  
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)  
 (nucleotide sequence; cloning of human suppressor of cytokine signaling (**SOCS**)-3 protein, its tissue expression and interaction with insulin-like growth factor-I receptor and the insulin receptor)
- REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 22 OF 33 HCPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 2000:720498 HCPLUS  
 DOCUMENT NUMBER: 134:188899  
 TITLE: Regulation of expression of the rat **SOCS-3** gene in hepatocytes by growth hormone, interleukin-6 and glucocorticoids. mRNA analysis and promoter characterization  
 AUTHOR(S): Paul, Conception; Seiliez, Iban; Thissen, Jean P.; Le Cam, Alphonse  
 CORPORATE SOURCE: INSERM U-376, Ilopital Arnaud de Villeneuve, Montpellier, Fr.  
 SOURCE: European Journal of Biochemistry (2000), 267(19), 5849-5857  
 CODEN: EJBCAI; ISSN: 0014-2956  
 PUBLISHER: Blackwell Science Ltd.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB Suppressors of cytokine signalling (**SOCS**) represent a newly discovered family of mols. that seem to play an important role in the shutting off of cytokine and possibly peptide hormone action. Thus, understanding the mechanisms controlling their expression is of cardinal importance. In the present study, we have cloned the rat **SOCS-3** gene and analyzed its expression and the functioning of its promoter in hepatocytes. Expression of **SOCS-3** mRNA, which is very weak in freshly isolated cells, tended to increase when hepatocytes were incubated without hormones. Growth hormone (GH) and, to a much larger extent, interleukin-6 (IL-6) rapidly activated mRNA synthesis whereas glucocorticoids (GC) strongly inhibited both basal and hormone-dependent expressions. A short promoter fragment (-137/+35) responded maximally to

GH and IL-6 (a threefold stimulation for each effector) and to GC (a 70-80% inhibition), whereas longer promoter sequences supported higher basal activity and lower pos. hormonal responses. Deletion and mutation analyses indicated that all hormonal responses were dependent on two cis-acting sequences termed the G-rich and the A/T-rich elements. Only the A/T-rich element was active in a heterologous context, thus behaving as a typical enhancer. Unexpectedly, the two signal transducer and activator of transcription (STAT) binding sites found immediately upstream of the G-rich motif did not seem to participate in either GH or IL-6 effect, despite the fact that one of them strongly responded to IL-6 when placed in front of a heterologous promoter. Finally, the neg. regulation of **SOCS**-3 promoter by GC that may contribute to gene silencing *in vivo*, appeared to involve interactions of the GC receptor with other transcription factors and not direct binding to DNA, as no GC-response element was found in the sequence.

IT 327193-82-8

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)  
 (amino acid sequence; regulation of expression of the rat **SOCS**-3 gene in hepatocytes by growth hormone, interleukin-6 and glucocorticoids)

IT 241121-24-4, GenBank AJ249240

RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)  
 (nucleotide sequence; regulation of expression of the rat **SOCS**-3 gene in hepatocytes by growth hormone, interleukin-6 and glucocorticoids)

REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 23 OF 33 HCPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2000:495135 HCPLUS

DOCUMENT NUMBER: 133:248558

TITLE: Regulation of **SOCS**-1 expression by translational repression

AUTHOR(S): Gregorieff, Alexander; Pyronnet, Stephane; Sonenberg, Nahum; Veillette, Andre

CORPORATE SOURCE: McGill Cancer Centre and the Department of Biochemistry, McGill University, Montreal, QC, H3G 1Y6, Can.

SOURCE: Journal of Biological Chemistry (2000), 275(28), 21596-21604

CODEN: JBCHA3; ISSN: 0021-9258

PUBLISHER: American Society for Biochemistry and Molecular Biology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Accumulating evidence demonstrates that cytokine receptor signaling is neg. regulated by a family of Src homol. 2 domain-containing adaptor mols. termed **SOCS** (suppressor of cytokine signaling). Previous studies have indicated that the expression of **SOCS**-related mols.

is tightly controlled at the level of transcription. Furthermore, it has been reported that **SOCS** polypeptides are relatively unstable in cells, unless they are associated with elongins B and C. Herein, we document the existence of a third mechanism of regulation of **SOCS** function. Our data showed that expression of **SOCS**-1, a member of the **SOCS** family, is strongly repressed at the level of translation initiation. Structure-function analyses indicated that this effect is mediated by the 5' untranslated region of **socs**-1 and that it relates to the presence of two upstream AUGs in this region. Further studies revealed that **socs**-1 translation is cap-dependent and that it is modulated by eIF4E-binding proteins. In combination, these results uncover a novel level of regulation of

**SOCS**-related mols. Moreover, coupled with previous findings, they suggest that **SOCS** expression is tightly regulated through multiple mechanisms, in order to avoid inappropriate interference with cytokine-mediated effects.

IT 193981-55-4

RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)  
(amino acid sequence; regulation of **SOCS**-1 expression by translational repression)

IT 238069-10-8, GenBank AF180302

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)  
(nucleotide sequence; regulation of **SOCS**-1 expression by translational repression)

REFERENCE COUNT: 64 THERE ARE 64 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 24 OF 33 HCPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1999:679718 HCPLUS

DOCUMENT NUMBER: 131:320765

TITLE: Human SBHWSB2 polypeptide and the encoding cDNA sequence and uses

INVENTOR(S): Michalovich, David; Sims, Matthew A.; Shaikh, Narjis

PATENT ASSIGNEE(S): Smithkline Beecham PLC, UK

SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11290085	A2	19991026	JP 1999-630	19990105
EP 953636	A2	19991103	EP 1998-203654	19981029
EP 953636	A3	20000329		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			
US 6303333	B1	20011016	US 1998-184001	19981102
US 2002155534	A1	20021024	US 2001-943689	20010831
PRIORITY APPLN. INFO.:			GB 1998-6221	A 19980323
			GB 1998-17479	A 19980811
			US 1998-184001	A3 19981102

AB The cDNA encoding a 404-amino-acid human SBHWSB2 polypeptide, homologous mouse **SOCS** (Suppressor Of Cytokine Signaling) protein, is disclosed. Also disclosed is a 400-amino-acid homolog derived from EST (expressed sequence tag). Claimed are methods of recombinant preparation of SBHWSB2 polypeptide, antibodies to SBHWSB2 polypeptide, methods of screening agonists and antagonists of SBHWSB2, use of the polypeptide and its encoding cDNA for developing agents and methods for diagnosis or therapy.

IT 248249-27-6, Protein SBHWSB2 (human) 248249-29-8

RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(amino acid sequence; human SBHWSB2 polypeptide and encoding cDNA sequence and uses)

IT 248249-26-5 248249-28-7

RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)  
(nucleotide sequence; human SBHWSB2 polypeptide and encoding cDNA sequence and uses)

L23 ANSWER 25 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 1999:634808 HCAPLUS  
 DOCUMENT NUMBER: 132:45591  
 TITLE: Radiation Hybrid and Cytogenetic Mapping of SOCS1 and SOCS2 to Chromosomes 16p13 and 12q, Respectively  
 AUTHOR(S): Yandava, C. N.; Pillari, A.; Drazen, J. M.  
 CORPORATE SOURCE: Division of Pulmonary and Critical Care Medicine, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School, Boston, MA, 02115, USA  
 SOURCE: Genomics (1999), 61(1), 108-111  
 PUBLISHER: Academic Press  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Suppressor of cytokine signaling (**SOCS**) proteins are involved in the neg. regulation of cytokine-induced STAT (signal transducers and activators of transcription) factor signaling. The authors cloned genomic regions of SOCS1 and SOCS2 genes and mapped these genes to chromosome 16p12-p13.1 and chromosome 12q21.3-q23 regions, resp., by cytogenetic and radiation hybrid mapping. In addition, the authors mapped SOCS2 by yeast artificial chromosome (YAC) pool screening to YAC contig WC 12.5 on chromosome 12 with an unambiguous hit to CHLC.ATA19H12 and WI-5940, which is 461.5 cR from the top of the map. (c) 1999 Academic Press.  
 IT 193981-56-5 252570-23-3  
 RL: PRP (Properties)  
 (amino acid sequence; radiation hybrid and cytogenetic mapping of SOCS1 and SOCS2 to human chromosomes 16p13 and 12q, resp., and gene sequences)  
 IT 225598-70-9, GenBank AF132440  
 RL: PRP (Properties)  
 (nucleotide sequence; radiation hybrid and cytogenetic mapping of SOCS1 and SOCS2 to human chromosomes 16p13 and 12q, resp., and gene sequences)  
 REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 26 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 1999:553614 HCAPLUS  
 DOCUMENT NUMBER: 131:267810  
 TITLE: Characterization of three genes, AKAP84, BAW and WSB1, located 3' to the Neurofibromatosis type 1 locus in Fugu rubripes  
 AUTHOR(S): Kehrer-Sawatzki, H.; Maier, C.; Moschgath, E.; Elgar, G.; Krone, W.  
 CORPORATE SOURCE: Department of Human Genetics, University of Ulm, Ulm, 89081, Germany  
 SOURCE: Gene (1999), 235(1-2), 1-11  
 PUBLISHER: Elsevier Science B.V.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB Sequence anal. of cosmid clones was instrumental to identify three genes in the region flanking the Fugu rubripes NF1 gene in the 3' direction: the AKAP84 gene (A-kinase anchor protein 84), the WSB1 gene (WD-40-repeat protein with a **SOCS** box) and the BAW gene of yet unknown function located between the AKAP84 and the WSB1 genes. The human homologues of these genes are not located in the immediate vicinity of the NF1 gene at 17q11.2. Although synteny of the NF1, AKAP84, BAW and WSB1 genes is conserved between Fugu and human, the gene order is not conserved, and more than a simple inversion would have been necessary to explain the difference in gene order. The mammalian homolog of the Fugu BAW gene or protein has not yet been characterized. As deduced from the resp. cDNAs, the Fugu AKAP84, WSB1 and BAW proteins vary concerning the

overall degree of similarity to their mammalian counterparts. Whereas the overall similarity of AKAP84 between Fugu and mouse is low, three regions of known functional importance show considerable conservation. These are the N-terminal anchoring domain mediating the insertion of AKAP84 in the outer mitochondrial membrane, the binding site of the regulatory subunit (RI or RII) of protein kinase A, and the C-terminal domain present in the alternatively spliced isoform AKAP121 with an hnRNP K homol. domain involved in RNA binding. A higher overall similarity of deduced protein sequences between Fugu and mouse was observed comparing the BAW gene products (74.1%) and the WSB1 proteins (77.2%).

IT 245432-41-1, Protein WSB1 (Fugu rubripes gene WSB1)

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(amino acid sequence; characterization of three genes, AKAP84, BAW and WSB1, located 3' to Neurofibromatosis type 1 locus in Fugu rubripes)

REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 27 OF 33 HCPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1999:461759 HCPLUS

DOCUMENT NUMBER: 131:210003

TITLE: Autoregulation of pituitary corticotroph **SOCS**-3 expression: characterization of the murine **SOCS-3** promoter

AUTHOR(S): Auernhammer, C. J.; Bousquet, C.; Melmed, S.

CORPORATE SOURCE: Department of Medicine, Cedars-Sinai Research Institute, University of California School of Medicine, Los Angeles, CA, 90048, USA

SOURCE: Proceedings of the National Academy of Sciences of the United States of America (1999), 96(12), 6964-6969

CODEN: PNASA6; ISSN: 0027-8424

PUBLISHER: National Academy of Sciences

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Pituitary corticotroph **SOCS**-3 is a novel intracellular regulator of leukemia inhibitory factor (LIF)-mediated proopiomelanocortin gene expression and adrenocorticotropic hormone (ACTH) secretion, inhibiting LIF-activated Janus kinase-signal transducers and activators of transcription (STAT) signaling in a neg. autoregulatory loop. We now demonstrate in corticotroph AtT-20 cells that LIF-stimulated endogenous **SOCS-3** mRNA expression is blocked in stable transfectants of **SOCS-3** wild type or in dominant neg. STAT-3 mutants, resp. We characterized  $\approx$ 3.8-kb genomic 5' sequence of murine **SOCS**-3, including  $\approx$ 2.9-kb sequence upstream of the transcription start site (+1), which was determined by 5' rapid amplification of cDNA ends and RNase protection assay. Different 5' constructs were cloned into the pGL3Basic vector, and luciferase activity was assayed in transiently transfected ACTH-secreting corticotroph AtT-20 cells. A STAT-1/STAT-3 binding element, located at nucleotides -72 to -64, was essential for LIF stimulation of **SOCS-3** promoter activity. LIF induced 10-fold increased luciferase activity in a wild-type construct spanning -2757 to +929 bases. However, deletion or point mutation of the STAT-1/STAT-3 binding element abrogated LIF action (2- to 3-fold). Electrophoretic mobility-shift assay anal. confirmed specific binding of STAT-1 and STAT-3 to this region. These results characterize the genomic 5' region of murine **SOCS-3** and identify an important STAT-1/STAT-3 binding element therein. Thus, LIF-stimulated **SOCS-3** gene expression is at least in part mediated by STAT-3 and STAT-1. The cytokine inhibitor **SOCS-3** acts in a neg. loop to auto-regulate its own gene expression, thus limiting its accumulation in the corticotroph cell. These results demonstrate a mechanism for corticotroph plasticity with rapid "on" and "off" ACTH induction in response to neuro-immunoendocrine stimuli, such as LIF.

IT 225438-40-4, GenBank AF117732

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)  
 (nucleotide sequence; sequence and characterization of the genomic 5' region of suppressor of cytokine signalling-3 (**SOCS-3**) gene, identification of a STAT-1/STAT-3 binding element critical for promoter activity)

REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 28 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1999:311300 HCAPLUS

DOCUMENT NUMBER: 130:333749

TITLE: Cloning and expression of HSCS-1 (human suppressor of cytokine signaling 1) cDNA and its potential use in gene therapy for cancer and immune disorders

INVENTOR(S): Hillman, Jennifer L.; Shah, Purvi; Corley, Neil C.

PATENT ASSIGNEE(S): Incyte Pharmaceuticals, Inc., USA

SOURCE: PCT Int. Appl., 71 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9923220	A1	19990514	WO 1998-US22930	19981028
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9912055	A1	19990524	AU 1999-12055	19981028
EP 970215	A1	20000112	EP 1998-955190	19981028
R: BE, DE, ES, FR, GB, IT, NL				
JP 2001508312	T2	20010626	JP 1999-526485	19981028
PRIORITY APPLN. INFO.:			US 1997-963165 A2 19971103	
			WO 1998-US22930 W	19981028

AB This invention provides protein and cDNA sequences for a newly identified human protein, designated HSCS-1 (human suppressor of cytokine signaling 1). HSCS-1 is of interest because it has 97% homol. to mouse **SOCS**-3, which is a SH2-containing protein that is able to suppress growth and differentiation in murine cells. In one embodiment, the invention relates to the use of HSCS-1 in gene therapy, especially for the treatment of cancer and/or immune disorders. Also provided are methods for detecting genes encoding suppressors of cytokine signaling in biol. samples.

IT 199489-38-8, Protein (human gene CIS3-reduced)

RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)  
 (amino acid sequence; cloning and expression of HSCS-1 (human suppressor of cytokine signaling 1) cDNA and its potential use in gene therapy for cancer and immune disorders)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 29 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1998:617830 HCAPLUS

DOCUMENT NUMBER: 129:326507  
 TITLE: Interaction of human suppressor of cytokine signaling  
**(SOCS)**-2 with the insulin-like growth factor-I receptor  
 AUTHOR(S): Dey, Bhakta R.; Spence, Susan L.; Nissley, Peter;  
 Furlanetto, Richard W.  
 CORPORATE SOURCE: Metabolism Branch, National Cancer Institute, National Institutes of Health, Bethesda, MD, 20892, USA  
 SOURCE: Journal of Biological Chemistry (1998), 273(37), 24095-24101  
 CODEN: JBCHA3; ISSN: 0021-9258  
 PUBLISHER: American Society for Biochemistry and Molecular Biology  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB **SOCS** (suppressor of cytokine signaling) proteins have been shown to be neg. regulators of cytokine receptor signaling via the Janus kinase (JAK)/signal transducer and activator of transcription (STAT) pathway. We have cloned a member of this family (hSOCS-2) by utilizing the insulin-like growth factor I receptor (IGF-IR) cytoplasmic domain as bait in a yeast two-hybrid screen of a human fetal brain library. The hSOCS-2 protein interacted strongly with the activated IGF-IR and not with a kinase neg. mutant receptor in the two-hybrid assay. Mutation of receptor tyrosines 950, 1250, 1251, and 1316 to phenylalanine or deletion of the COOH-terminal 93 amino acids did not result in decreased interaction of the receptor with hSOCS-2 protein. The hSOCS-1 protein also interacted strongly with IGF-IR in the two-hybrid assay. Glutathione S-transferase-hSOCS-2 associated with activated IGF-IR in lysates of mouse fibroblasts overexpressing IGF-IR. Human embryonic kidney cells (293) were transiently transfected with vectors containing IGF-IR and FLAG epitope-tagged hSOCS-2. After IGF-I stimulation, activated IGF-IR was found in anti-FLAG immunoppts. and, conversely, FLAG-hSOCS-2 was found in anti IGF-IR immunoppts. Thus, hSOCS-2 interacted with IGF-IR both in vitro and in vivo. HSOCS-2 mRNA was expressed in many human fetal and adult tissues with particularly high abundance in fetal kidney and adult heart, skeletal muscle, pancreas, and liver. These results raise the possibility that **SOCS** proteins may also play a regulatory role in IGF-I receptor signaling.

IT 195461-12-2

RL: BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); MFM (Metabolic formation); PRP (Properties); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); PROC (Process)  
 (amino acid sequence; human **SOCS**-2 sequence and interaction with IGF-I receptor)

IT 210181-91-2, GenBank AF037989

RL: PRP (Properties)  
 (nucleotide sequence; human **SOCS**-2 sequence and interaction with IGF-I receptor)

REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 30 OF 33 HCPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 1998:323258 HCPLUS  
 DOCUMENT NUMBER: 129:37240  
 TITLE: Mammalian **SOCS** proteins and **SOCS**  
 protein cDNAs and methods of modulating inter- and intracellular signal transduction  
 INVENTOR(S): Hilton, Douglas J.; Alexander, Warren S.; Viney, Elizabeth M.; Willson, Tracy A.; Richardson, Rachael T.; Starr, Robyn; Nicholson, Sandra E.; Metcalf, Donald; Nicola, Nicos A.; et al.  
 PATENT ASSIGNEE(S): Walter and Eliza Hall Institute of Medical Research,

Australia; Hilton, Douglas J.; Alexander, Warren S.; Viney, Elizabeth M.; Willson, Tracy A.; Richardson, Rachael T.; Starr, Robyn; Nicholson, Sandra E.; Metcalf, Donald; Nicola, Nicos A.

SOURCE: PCT Int. Appl., 325 pp.  
CODEN: PIXXD2

DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9820023	A1	19980514	WO 1997-AU729	19971031
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9746943	A1	19980529	AU 1997-46943	19971031
AU 735735	B2	20010712		
GB 2331753	A1	19990602	GB 1999-5020	19971031
EP 948522	A1	19991013	EP 1997-909070	19971031
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
CN 1253565	A	20000517	CN 1997-180920	19971031
JP 2001502183	T2	20010220	JP 1998-520867	19971031
NO 9902116	A	19990629	NO 1999-2116	19990430
US 6323317	B1	20011127	US 1999-302769	19990430
KR 2000053017	A	20000825	KR 1999-703904	19990501
US 2002147307	A1	20021010	US 2001-908805	20010719
PRIORITY APPLN. INFO.:				
		AU 1996-3384	A	19961101
		AU 1997-5117	A	19970214
		US 1997-962560	A2	19971031
		WO 1997-AU729	W	19971031
		US 1998-83807P	P	19980501
		US 1999-302769	A3	19990430

OTHER SOURCE(S): MARPAT 129:37240

AB Nucleic acids encoding mammalian Suppressor Of Cytokine Signaling (**SOCS**) proteins and the **SOCS** proteins themselves from mouse, rat, and human sources are disclosed. The new **SOCS** family comprises at least 3 classes of protein mols. based on amino acid sequence motifs (SH2 domain, WD-40 repeat, and ankyrin repeat) located N-terminal of a C-terminal motif called the **SOCS** box. Intracellular levels of **SOCS** protein, intracellular signal transduction, and intercellular communication may be manipulated by modulating **SOCS** protein gene expression or **SOCS** protein activity. For example, SOCS1 inhibits a range of interleukin-6 signal transduction processes, including STAT3-phosphorylation and activation, as well as the action of a range of cytokines, and the transcription of the SOCS1 gene itself is stimulated by interleukin-6 in vitro and in vivo. Mols. of the present invention are useful in modulating cellular responsiveness to cytokines as well as other mediators of signal transduction such as endogenous or exogenous mols., antigens, microbes and microbial products, viruses or components thereof, ions, hormones and parasites.

IT 193981-55-4 193981-56-5 193981-57-6  
193981-58-7 204463-68-3, Protein SOCS4 (Mus musculus suppressor of cytokine signaling) 204463-70-7, Protein SOCS6 (Mus musculus suppressor of cytokine signaling)

RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(amino acid sequence; mammalian **SOCS** proteins and **SOCS** protein cDNAs and methods of modulating inter- and intracellular signal transduction)

IT 194676-71-6 194676-72-7 194676-73-8

RL: PRP (Properties)  
(nucleotide sequence; mammalian **SOCS** proteins and **SOCS** protein cDNAs and methods of modulating inter- and intracellular signal transduction)

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 31 OF 33 HCPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1998:33885 HCPLUS

DOCUMENT NUMBER: 128:227442

TITLE: Twenty proteins containing a C-terminal **SOCS** box form five structural classes

AUTHOR(S): Hilton, Douglas J.; Richardson, Rachael T.; Alexander, Warren S.; Viney, Elizabeth M.; Willson, Tracy A.; Sprigg, Naomi S.; Starr, Robyn; Nicholson, Sandra E.; Metcalf, Donald; Nicola, Nicos A.

CORPORATE SOURCE: The Walter and Eliza Hall Institute for Medical Research and The Cooperative Research Center for Cellular Growth Factors, Parkville, 3050, Australia

SOURCE: Proceedings of the National Academy of Sciences of the United States of America (1998), 95(1), 114-119

W

CODEN: PNASA6; ISSN: 0027-8424

PUBLISHER: National Academy of Sciences

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The four members of the recently identified suppressor of cytokines signaling family (**SOCS**-1, **SOCS**-2, **SOCS**-3, and CIS, where CIS is cytokine-inducible SH2-containing protein) appear, by various means, to neg. regulate cytokine signal transduction. Structurally, the **SOCS** proteins are composed of an N-terminal region of variable length and amino acid composition, a central SH2 domain, and a previously unrecognized C-terminal motif that the authors have called the **SOCS** box. By using the **SOCS** box amino acid sequence consensus, the authors have searched DNA databases and have identified a further 16 proteins that contain this motif. These proteins fall into five classes based on the protein motifs found N-terminal of the **SOCS** box. In addition to four new **SOCS** proteins (**SOCS**-4 to **SOCS**-7) containing an SH2 domain and a **SOCS** box, the authors describe three new families of proteins that contain either WD-40 repeats (WSB-1 and -2), SPRY domains (SSB-1 to -3) or ankyrin repeats (ASB-1 to -3) N-terminal of the **SOCS** box. In addition, the authors show that a class of small GTPases also contains a **SOCS** box. The expression of representative members of each class of proteins differs markedly, as does the regulation of expression by cytokines. The function of the WSB, SSB, and ASB-protein families remains to be determined

IT 204463-68-3 204463-69-4 204463-70-7

RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); OCCU (Occurrence)  
(amino acid sequence; sequence database searches reveal twenty proteins containing a C-terminal **SOCS** box and categorization of **SOCS** box-containing proteins into five structural classes)

IT 202295-51-0, GenBank AF033186 202295-52-1, GenBank

AF033187 202295-53-2, GenBank AF033188

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(nucleotide sequence; sequence database searches reveal twenty proteins containing a C-terminal **SOCS** box and categorization of **SOCS** box-containing proteins into five structural classes)

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 32 OF 33 HCPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 1997:698851 HCPLUS  
 DOCUMENT NUMBER: 128:31734  
 TITLE: **SOCS-1/JAB/SSI-1** can bind to and suppress Tec protein-tyrosine kinase  
 AUTHOR(S): Ohya, Ken-Ichi; Kajigaya, Sachiko; Yamashita, Yoshihiro; Miyazato, Akira; Hatake, Kiyohiko; Miura, Yasusada; Ikeda, Uichi; Shimada, Kazuyuki; Ozawa, Keiya; Mano, Hiroyuki  
 CORPORATE SOURCE: Division of Cardiology, Jichi Medical School, Kawachi, 329-04, Japan  
 SOURCE: Journal of Biological Chemistry (1997), 272(43), 27178-27182  
 CODEN: JBCHA3; ISSN: 0021-9258  
 PUBLISHER: American Society for Biochemistry and Molecular Biology  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB Tec is the prototype of a recently emerging subfamily among nonreceptor type protein tyrosine kinases and is known to become tyrosine-phosphorylated and activated by a wide range of cytokine stimulations in hematopoietic cells. Although Tec was recently shown to be involved in the cytokine-driven activation mechanism of c-fos transcription, it is yet obscure how Tec relays the signals from cell surface receptors to the nucleus. To identify signaling mols. acting downstream of Tec, the authors have looked for Tec-interacting proteins (TIPs) by using the yeast two-hybrid system. Here the authors report the identification and characterization of a novel protein, TIP3, which has been simultaneously identified by other groups as **SOCS-1**, JAB, or SSI-1. TIP3 carries one Src homol. 2 domain with a sequence similarity to that of CIS. In 293 cells, TIP3 assocs. with Tec and suppresses its kinase activity. Interestingly, TIP3 can also down-regulate the activity of Jak2 but not that of Lyn. The authors propose the **SOCS-1/JAB/SSI-1/TIP3** is a novel type of neg. regulator to a subset of protein tyrosine kinases.

IT 193981-56-5P  
 RL: BPN (Biosynthetic preparation); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PREP (Preparation); PROC (Process)  
 (amino acid sequence; cDNA sequence of human **SOCS**-1/JAB/SSI-1/TIP3 and suppression of Jak2 kinase and Tec kinase by recombinant TIP3 in animal cells)

IT 199655-15-7  
 RL: PRP (Properties)  
 (nucleotide sequence; cDNA sequence of human **SOCS**-1/JAB/SSI-1/TIP3 and suppression of Jak2 kinase and Tec kinase by recombinant TIP3 in animal cells)

REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 33 OF 33 HCPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 1997:426194 HCPLUS  
 DOCUMENT NUMBER: 127:204224  
 TITLE: A family of cytokine-inducible inhibitors of signaling  
 AUTHOR(S): Starr, Robyn; Willson, Tracy A.; Viney, Elizabeth M.; Murray, Leecia J. L.; Rayner, John R.; Jenkins, Brendan J.; Gonda, Thomas J.; Alexander, Warren S.; Metcalf, Donald; Nicola, Nicos A.; Hilton, Douglas J.

CORPORATE SOURCE: Walter and Eliza Hall Inst. Med. Res., Cooperative  
Res. Center Cellular Growth Factors,  
Parkville/Victoria, 3052, Australia

SOURCE: Nature (London) (1997), 387(6636), 917-921  
CODEN: NATUAS; ISSN: 0028-0836

PUBLISHER: Macmillan Magazines

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Cytokines are secreted proteins that regulate important cellular responses such as proliferation and differentiation. Key events in cytokine signal transduction are well defined: cytokines induce receptor aggregation, leading to activation of members of the JAK family of cytoplasmic tyrosine kinases. In turn, members of the STAT family of transcription factors are phosphorylated dimerize and increase the transcription of genes with STAT recognition sites in their promoters. Less is known of how cytokine signal transduction is switched off. The authors have cloned a complementary DNA encoding a protein **SOCS-1**, containing an SH2-domain, by its ability to inhibit the macrophage differentiation of M1 cells in response to interleukin-6. Expression of **SOCS-1** inhibited both interleukin-6-induced receptor phosphorylation and STAT activation. The authors have also cloned two relatives of **SOCS-1**, named **SOCS-2** and **SOCS-3**, which together with the previously described CIS form a new family of proteins. Transcription of all four **SOCS** genes is increased rapidly in response to interleukin-6, in vitro and in vivo, suggesting they may act in a classic neg. feedback loop to regulate cytokine signal transduction.

IT 193981-55-4 193981-56-5 193981-57-6

193981-58-7

RL: PRP (Properties)

(amino acid sequence; cDNA sequences for suppressors of cytokine signaling of human and mouse)

IT 194676-70-5 194676-71-6 194676-72-7

194676-73-8

RL: PRP (Properties)

(nucleotide sequence; cDNA sequences for suppressors of cytokine signaling of human and mouse)

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L25 ANSWER 1 OF 90 REGISTRY COPYRIGHT 2003 ACS on STN  
 RN **552270-57-2** REGISTRY  
 CN Protein Asb5 (ankyrin repeat containing SOCS box protein 5) (rabbit gene  
 asb5) (9CI) (CA INDEX NAME)

OTHER NAMES:

CN GenBank AAO39148  
 CN GenBank AAO39148 (Translated from: GenBank AY165034)  
 FS PROTEIN SEQUENCE  
 MF Unspecified  
 CI MAN  
 SR GenBank  
 LC STN Files: CA, CAPLUS

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*  
 \*\*\* USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE \*\*\*  
 1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:66565

L25 ANSWER 5 OF 90 REGISTRY COPYRIGHT 2003 ACS on STN  
 RN **512862-01-0** REGISTRY  
 CN Protein SOCS-7 (suppressor of cytokine signaling-7) (mouse SH2  
 domain-specific fragment) (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 9: PN: WO03031468 SEQID: 8 claimed protein  
 FS PROTEIN SEQUENCE  
 MF Unspecified  
 CI MAN  
 SR CA  
 LC STN Files: CA, CAPLUS, TOXCENTER

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*  
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 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:333436

L25 ANSWER 10 OF 90 REGISTRY COPYRIGHT 2003 ACS on STN  
 RN **481587-38-6** REGISTRY  
 CN Protein ASB15 (ankyrin repeat and SOCS box 15) (cattle) (9CI) (CA INDEX  
 NAME)  
 OTHER NAMES:  
 CN GenBank AAN38732  
 CN GenBank AAN38732 (Translated from: GenBank AF527382)  
 FS PROTEIN SEQUENCE

MF Unspecified  
 CI MAN  
 SR GenBank  
 LC STN Files: CA, CAPLUS

## \*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*  
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REFERENCE 1: 139:112512

L25 ANSWER 15 OF 90 REGISTRY COPYRIGHT 2003 ACS on STN  
 RN **460775-67-1** REGISTRY  
 CN DNA (human fetal brain clone pBS-2507b06 SOCS-5 (suppressor of cytokine signaling) protein 29 cDNA plus flanks) (9CI) (CA INDEX NAME)

## OTHER NAMES:

CN 2: PN: CN1331096 SEQID: 1 claimed DNA  
 FS NUCLEIC ACID SEQUENCE  
 MF Unspecified  
 CI MAN  
 SR CA  
 LC STN Files: CA, CAPLUS, TOXCENTER

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 \*\*\* USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE \*\*\*  
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     1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:243102

L25 ANSWER 20 OF 90 REGISTRY COPYRIGHT 2003 ACS on STN  
 RN **457530-07-3** REGISTRY  
 CN DNA(cattle protein ASB15 (ankyrin repeat and SOCS box 15) gene exon 6 plus flanks) (9CI) (CA INDEX NAME)

## OTHER NAMES:

CN GenBank AF541274  
 FS NUCLEIC ACID SEQUENCE  
 MF Unspecified  
 CI MAN  
 SR GenBank  
 LC STN Files: CA, CAPLUS, GENBANK

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*  
 \*\*\* USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE \*\*\*  
     1 REFERENCES IN FILE CA (1907 TO DATE)  
     1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:112512

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L25 ANSWER 25 OF 90 REGISTRY COPYRIGHT 2003 ACS on STN  
 RN **457530-02-8** REGISTRY  
 CN DNA(cattle protein ASB15 (ankyrin repeat and SOCS box 15) gene exon 1 fragment plus 3'-flank) (9CI) (CA INDEX NAME)

## OTHER NAMES:

CN GenBank AF541269  
 FS NUCLEIC ACID SEQUENCE  
 MF Unspecified  
 CI MAN  
 SR GenBank  
 LC STN Files: CA, CAPLUS, GENBANK

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*  
 \*\*\* USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE \*\*\*  
     1 REFERENCES IN FILE CA (1907 TO DATE)  
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REFERENCE 1: 139:112512

L25 ANSWER 30 OF 90 REGISTRY COPYRIGHT 2003 ACS on STN  
 RN **412104-48-4** REGISTRY  
 CN Protein SOCS-1 (suppressor of cytokine signaling-1) (rat) (9CI) (CA INDEX NAME)  
 OTHER NAMES:  
 CN 8: PN: WO0230184 SEQID: 8 claimed protein  
 FS PROTEIN SEQUENCE  
 MF Unspecified  
 CI MAN  
 SR CA  
 LC STN Files: CA, CAPLUS, TOXCENTER

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*  
 \*\*\* USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE \*\*\*  
     1 REFERENCES IN FILE CA (1907 TO DATE)  
     1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 136:319386

L25 ANSWER 35 OF 90 REGISTRY COPYRIGHT 2003 ACS on STN  
 RN **412104-43-9** REGISTRY  
 CN Protein SOCS-1 (suppressor of cytokine signaling-1) (mouse) (9CI) (CA INDEX NAME)  
 OTHER NAMES:  
 CN 2: PN: WO0230184 SEQID: 2 claimed protein  
 FS PROTEIN SEQUENCE  
 MF Unspecified  
 CI MAN  
 SR CA  
 LC STN Files: CA, CAPLUS, TOXCENTER

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*  
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     1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 136:319386

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L25 ANSWER 40 OF 90 REGISTRY COPYRIGHT 2003 ACS on STN  
 RN **327193-82-8** REGISTRY  
 CN Suppressor of cytokine signaling 3 (Rattus norvegicus strain Sprague Dawley gene socs-3 fragment) (9CI) (CA INDEX NAME)  
 OTHER NAMES:  
 CN GenBank CAB56083  
 CN GenBank CAB56083 (Translated from: GenBank AJ249240)  
 FS PROTEIN SEQUENCE  
 MF Unspecified  
 CI MAN  
 SR CA  
 LC STN Files: CA, CAPLUS

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*  
 \*\*\* USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE \*\*\*  
     1 REFERENCES IN FILE CA (1907 TO DATE)  
     1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 134:188899

L25 ANSWER 45 OF 90 REGISTRY COPYRIGHT 2003 ACS on STN  
 RN **313284-44-5** REGISTRY  
 CN DNA (mouse protein SOCS-3 (suppressor of cytokine signaling-3) gene promoter region-containing 191-nucleotide fragment) (9CI) (CA INDEX NAME)  
 OTHER NAMES:  
 CN 10: PN: WO0075326 SEQID: 10 claimed DNA  
 FS NUCLEIC ACID SEQUENCE  
 MF Unspecified  
 CI MAN  
 SR CA  
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*  
 \*\*\* USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE \*\*\*  
     1 REFERENCES IN FILE CA (1907 TO DATE)  
     1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 134:55504

L25 ANSWER 50 OF 90 REGISTRY COPYRIGHT 2003 ACS on STN  
 RN **313284-39-8** REGISTRY  
 CN DNA (mouse protein SOCS-3 (suppressor of cytokine signaling-3) gene promoter region-containing 1803-nucleotide fragment) (9CI) (CA INDEX NAME)  
 OTHER NAMES:  
 CN 5: PN: WO0075326 SEQID: 5 claimed DNA  
 FS NUCLEIC ACID SEQUENCE  
 MF Unspecified  
 CI MAN  
 SR CA  
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*  
 \*\*\* USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE \*\*\*  
     1 REFERENCES IN FILE CA (1907 TO DATE)  
     1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 134:55504

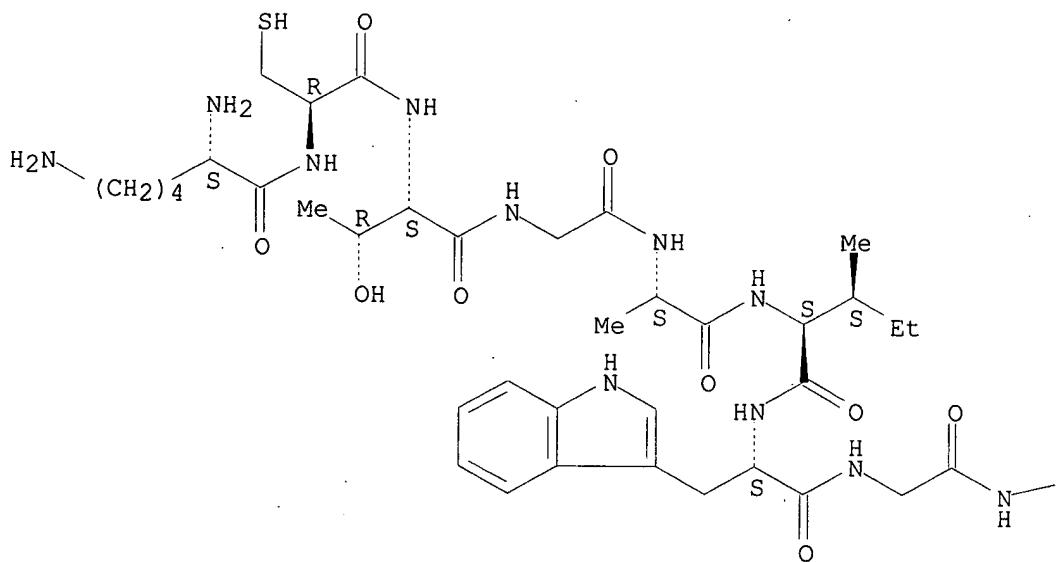
L25 ANSWER 55 OF 90 REGISTRY COPYRIGHT 2003 ACS on STN  
 RN **252570-23-3** REGISTRY  
 CN L-Valine, L-lysyl-L-cysteinyl-L-threonylglycyl-L-alanyl-L-isoleucyl-L-tryptophylglycyl-L-leucyl-L-prolyl-L-leucyl-L-prolyl-L-threonyl-L-arginyl-L-leucyl-L-lysyl-L- $\alpha$ -aspartyl-L-tyrosyl-L-leucyl-L- $\alpha$ -glutamyl-L- $\alpha$ -glutamyl-L-tyrosyl-L-lysyl-L-phenylalanyl-L-glutaminyl- (9CI) (CA INDEX NAME)  
 OTHER NAMES:  
 CN Protein SOCS-2 (suppressor of cytokine signaling-2) (human gene SOCS2 C-terminal fragment)  
 CN Suppressor of cytokine signaling-2 (human gene SOCS2 C-terminal fragment)  
 FS PROTEIN SEQUENCE; STEREOSEARCH  
 MF C144 H222 N34 O38 S

SR CA  
 LC STN Files: CA, CAPLUS

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

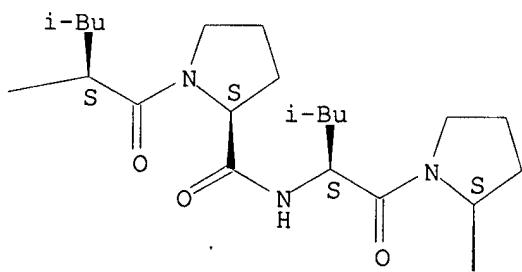
Absolute stereochemistry.

PAGE 1-A

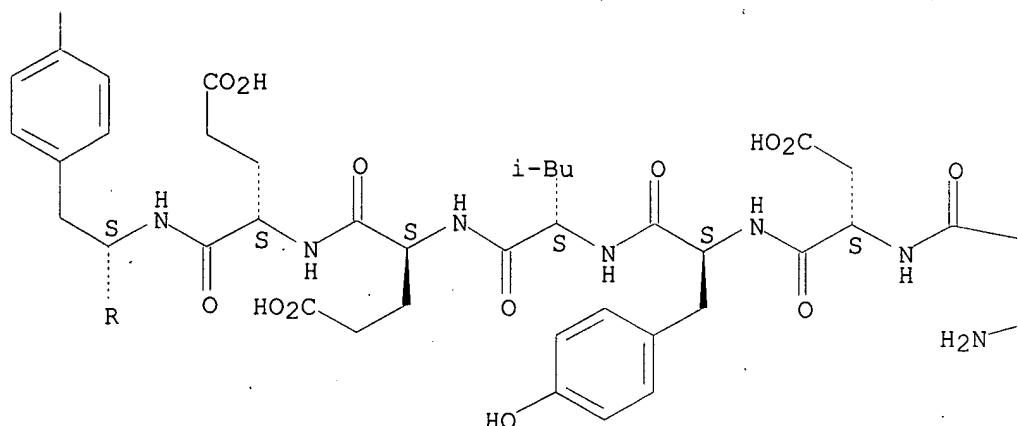


OH

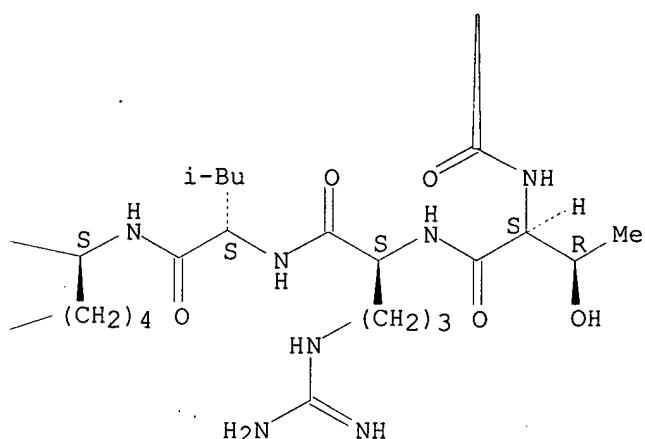
PAGE 1-B



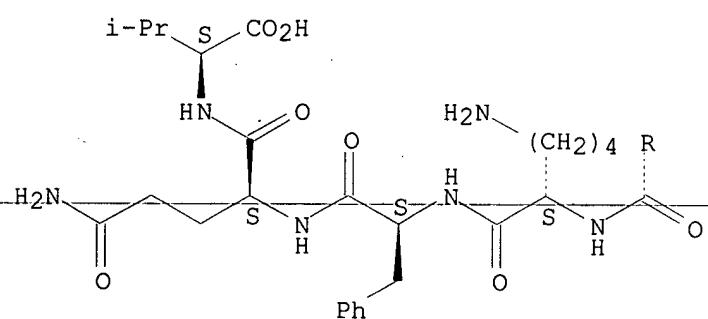
PAGE 2-A



PAGE 2-B



PAGE 3-A



1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 132:45591

RN **245432-41-1** REGISTRY  
CN Protein WSB1 (Fugu rubripes gene WSB1) (9CI) (CA INDEX NAME)  
OTHER NAMES:  
CN GenBank AAD32247  
CN GenBank AAD32247 (Translated from: GenBank AF064564)  
CN Protein (Fugu rubripes gene WSB1)  
CN Protein WSB1(WD-40-repeat protein with SOCS box) (Fugu rubripes gene WSB1)  
FS PROTEIN SEQUENCE  
MF Unspecified  
CI MAN  
SR CA  
LC STN Files: CA, CAPLUS

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*  
\*\*\* USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE \*\*\*  
    2 REFERENCES IN FILE CA (1907 TO DATE)  
    2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 132:161939

REFERENCE 2: 131:267810

L25 ANSWER 65 OF 90 REGISTRY COPYRIGHT 2003 ACS on STN  
RN **227066-92-4** REGISTRY  
CN DNA (human gene asb-3 Asb (ankyrin repeat-containing SOCS box) protein cDNA) (9CI) (CA INDEX NAME)  
OTHER NAMES:  
CN GenBank AF156778  
FS NUCLEIC ACID SEQUENCE  
MF Unspecified  
CI MAN  
SR GenBank  
LC STN Files: CA, CAPLUS, GENBANK

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*  
\*\*\* USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE \*\*\*  
    1 REFERENCES IN FILE CA (1907 TO DATE)  
    1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 135:71884

L25 ANSWER 70 OF 90 REGISTRY COPYRIGHT 2003 ACS on STN  
RN **225904-82-5** REGISTRY  
CN DNA (mouse strain C57BL/6 gene asb-1 Asb (ankyrin repeat-containing SOCS box) protein fragment-specifying cDNA) (9CI) (CA INDEX NAME)  
OTHER NAMES:  
CN GenBank AF155352  
FS NUCLEIC ACID SEQUENCE  
MF Unspecified  
CI MAN  
SR GenBank  
LC STN Files: CA, CAPLUS, GENBANK

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*  
\*\*\* USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE \*\*\*  
    1 REFERENCES IN FILE CA (1907 TO DATE)  
    1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 135:71884

L25 ANSWER 75 OF 90 REGISTRY COPYRIGHT 2003 ACS on STN

RN 204463-69-4 REGISTRY  
 CN Protein SOCS-5 (Mus musculus strain C57BL/6 SOCS box-containing) (9CI)  
 (CA INDEX NAME)  
 OTHER NAMES:  
 CN GenBank AAB96648  
 CN GenBank AAB96648 (Translated from: GenBank AF033187)  
 FS PROTEIN SEQUENCE  
 MF Unspecified  
 CI MAN  
 SR CA  
 LC STN Files: CA, CAPLUS

## \*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*  
 \*\*\* USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE \*\*\*  
     1 REFERENCES IN FILE CA (1907 TO DATE)  
     1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 128:227442

L25 ANSWER 80 OF 90 REGISTRY COPYRIGHT 2003 ACS on STN  
 RN 199655-15-7 REGISTRY  
 CN DNA (human protein TIP3 (Tec-interacting protein 3) cDNA plus flanks)  
 (9CI) (CA INDEX NAME)  
 OTHER NAMES:  
 CN 177: PN: WO03038130 FIGURE: 3 claimed DNA  
 CN 2490: PN: WO03042661 TABLE: 25A claimed DNA  
 CN 270: PN: WO03081201 TABLE: 1 claimed DNA  
 CN 3339: PN: WO03042661 TABLE: 42A claimed DNA  
 CN DNA (human gene tip3 cDNA)  
 CN DNA (human protein SOCS-1 cDNA plus flanks)  
 CN GenBank AB000734  
 FS NUCLEIC ACID SEQUENCE  
 MF Unspecified  
 CI MAN  
 SR GenBank  
 LC STN Files: CA, CAPLUS, GENBANK, TOXCENTER, USPATFULL

## \*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*  
 \*\*\* USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE \*\*\*  
     11 REFERENCES IN FILE CA (1907 TO DATE)  
     11 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:291131

REFERENCE 2: 139:2018

REFERENCE 3: 138:397234

REFERENCE 4: 138:380471

REFERENCE 5: 138:266967

REFERENCE 6: 138:266966

REFERENCE 7: 138:266965

REFERENCE 8: 138:266964

REFERENCE 9: 138:266962

REFERENCE 10: 138:168793

L25 ANSWER 85 OF 90 REGISTRY COPYRIGHT 2003 ACS on STN  
RN **194676-71-6** REGISTRY  
CN DNA (human Raji cell gene SOCS-1 protein SOCS-1 (suppressor of cytokine signaling-1) cDNA plus flanks) (9CI) (CA INDEX NAME)  
OTHER NAMES:  
CN DNA (human suppressor of cytokine signaling protein SOCS1 cDNA plus flanks)  
FS NUCLEIC ACID SEQUENCE  
MF Unspecified  
CI MAN  
SR CA  
LC STN Files: CA, CAPLUS, USPATFULL

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*  
\*\*\* USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE \*\*\*  
2 REFERENCES IN FILE CA (1907 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 129:37240

REFERENCE 2: 127:204224

L25 ANSWER 90 OF 90 REGISTRY COPYRIGHT 2003 ACS on STN  
RN **193981-55-4** REGISTRY  
CN Protein SOCS-1 (suppressor of cytokine signaling-1) (Mus musculus thymus gland gene SOCS-1) (9CI) (CA INDEX NAME)  
OTHER NAMES:  
CN Protein SOCS-1 (suppressor of cytokine signaling-1) (Mus musculus gene Socs1)  
CN Protein SOCS1 (Mus musculus suppressor of cytokine signaling)  
CN Suppressor of cytokine signaling-1 protein (mouse gene Socs1)  
FS PROTEIN SEQUENCE  
MF Unspecified  
CI MAN  
SR CA  
LC STN Files: CA, CAPLUS, USPATFULL

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*  
\*\*\* USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE \*\*\*  
3 REFERENCES IN FILE CA (1907 TO DATE)  
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:248558

REFERENCE 2: 129:37240

REFERENCE 3: 127:204224